

### **REMARKS**

Claims 29-52 are pending. Claims 29 and 41 are in independent form.

In the action mailed July 3, 2007, claims 41-52 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The rejection contends that the description of “transmission media” at pages 4-5 of the specification renders the recitation of machine-readable media in claims 41-52 non-statutory.

Applicant respectfully disagrees. Claim 41 relates to machine-readable media storing instructions. Applicant respectfully submits that the storage of instructions requires a useful, concrete and tangible physical article, object, or manufacture. Hence, the machine-readable media recited in claims 41-52 are statutory. *See* Interim Guidelines for Subject Matter Eligibility - OG Date: 22 November 2005, ANNEX IV, (c) Electro-Magnetic Signals (*Available at* <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

Claim 41 was also rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter based on the recitation of “operable to” instead of “configured to.” Although applicant disagrees with the basis of the rejection, claim 41 has been amended to advance prosecution.

### **CLAIMS 29 and 41**

Claims 29 and 41 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent Publication No. 2003/0135490 to Barrett et al. (hereinafter “Barrett”) and U.S. Patent No. 6,772,150 to Whitman et al. (hereinafter “Whitman”).

Claim 29 relates to a method that includes estimating a breadth of a search query, identifying user interaction with a first document in a result set that is responsive to the search query, changing a ranking of a popularity of the first document based at least in part on the user interaction with the first document and the breadth of the search query, and making the ranking of the popularity of the first document available for responding to a subsequent search query. The amount of the change in the ranking of the popularity decreases with increased breadth of the search query.

Claim 41 relates to an article that includes one or more machine-readable media storing instructions configured to cause one or more machines to perform operations. The operations are related to activities performed in method claim 29.

The rejections of claims 29 and 41 contend that it would have been obvious for one of ordinary skill to have combined Barrett and Whitman to arrive at the recited subject matter.

Applicant respectfully disagrees. In this regard, Barrett describes a system in which user interaction with a search result set is collected and used to generate “enhanced popularity rankings.” *See, e.g., Barrett*, para. [0009]. According to Barrett, the following types of user interaction information can be collected:

“what information was selected, what was it ranked when it was selected, what is the historical use rate of the information selected, what summary of the selected information was shown to the user, was there a pre-defined expectation of use for the information, time of day and date of selection and personalized data about the user (what zip code are they in, do they have preferences, are they male/female, are they in a particular profession, and historical data about their previous selections).” *See, e.g., id.*, para. [0011].

Please note that Barrett does not change his “enhanced popularity rankings” based the breadth of the search query *per se*. Indeed, the rejection admits as much. *See Office action mailed July 3, 2007*, page 3, section 6.

Instead, Barrett presents two different approaches for generating his “enhanced popularity rankings.” The first is the adaptive inflation approach, where:

$$\text{Enhanced Popularity Score} = \sum h_i * \frac{\sum_{pop} h_B}{\sum_{pop} h_i}$$

*See, e.g., id.*, paras. [0017]-[0032]. The second is the blended inflation approach, in which a site is tracked as both a highly trafficked site and sparsely visited site with two different decay rates. *See, e.g., id.*, para. [0034]. The rank adjusted score ( $h_B$ ) for the adaptive inflation approach is the product of a hit or click ( $h=1$ ) and the rank of a site (i.e.,  $f(\text{rank})$ ) in a set of search results. *See, e.g., id.*, paras. [0018]-[0020]. The distribution for  $f(\text{rank})$  is equal to one when the rank of the site is one and increases for lower ranked results. *Id.* Since the rank adjusted score ( $h_B$ ) is in the numerator of the enhanced popularity score definition, a hit or click ( $h$ ) on a lower ranked result results in an incrementally larger enhanced popularity score.

This incrementally larger increase in rank adjusted score after a hit or click on a lower ranked site would appear to be similar to the approach described in U.S. Patent Publication No. 2002/0049752 to Bowman et al. (hereinafter “Bowman”), which was cited in the Office action mailed January 18, 2007. In particular, Bowman’s rating scores for selected items are incremented by a larger amount when a selected item is further from the beginning of a query result. To the extent that a larger number of results inherently reflects a broader search query, both Barrett and Bowman describe that a hit in a larger result set (i.e., a broader search query) is to be weighted by an incrementally larger factor than a hit on a higher ranked result. Hence, the incremental change in popularity is increased with increasing search query breadth, which is the exact opposite of what is recited in claims 29 and 41.

Against this backdrop, the rejection contends that it would be obvious for one of ordinary skill to turn to Whitman and change a ranking of a popularity of a document based at least in part on user interaction with the document and a breadth of a search query having a responsive result set that includes the document such that the amount of the change in the ranking decreases with increased breadth, as recited in claims 29 and 41.

Applicant respectfully disagrees. To begin with, Whitman does not rank the popularity of documents at all. Rather, Whitman describes a search refinement system that uses a history of search queries to generate related search phrases. *See, e.g., Whitman*, col. 3, line 39-42. In particular, Whitman's system uses the frequency with which specific phrases containing key terms have been submitted to the search engine in combination with the query term(s) entered by a user to recommend related search phrases. *See, e.g., id.*, col. 3, line 42-48. By incorporating such historical query information, Whitman's system produces related search phrases that are frequently used by other users increases the likelihood that these related search phrases will be helpful to refine the search of a present user. *See, e.g., id.*, col. 3, line 48-52.

To begin with, a "related search phrase" is not a document in a result set that is responsive to a search query. Instead, a related search phrase is simply another search phrase. Whitman thus does not rank the popularity of documents but rather provides a set of related search phrases.

Moreover, even if one were to consider a related search phrase to be a document in a result set that is responsive to a search query, one of ordinary skill would still not arrive at the subject matter recited in claims 29 and 41. In this regard, Whitman describes that the related search phrases can be selected for presentation to a user based on the number of matches that were found using the related search phrases. *See, e.g., id.*, col. 2, line 28-35. *See also id.*, col. 3, line 52-57 (describing that historical query submissions that produce a NULL query result are

ignored); col. 5, line 52-57 (describing that the search phrases can be scored based on the number of hits produced, with search phrases that produced relatively small numbers of hits (but more than zero) being scored more highly). Thus, the related search phrases are scored based on their own breadth—not based on a breadth of search query having a result set that includes the related search phrases.

Thus, even if Barrett and Whitman were combined, one of ordinary skill would still not change a ranking of a popularity of a document based at least in part on user interaction with the document and a breadth of a search query having a responsive result set that includes the document such that the amount of the change in the ranking decreases with increased breadth, as recited in claims 29 and 41.

Since one of ordinary skill would not arrive at the recited subject matter even if Barrett and Whitman were combined (which applicant does not concede), claims 29 and 41 are not obvious over Barrett and Whitman. Applicant respectfully requests that the rejections of claims 29, 41, and the claims dependent therefrom be withdrawn.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

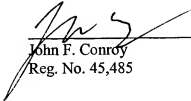
Applicant: Pfleger et al.  
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No fees are believed due at this time. Please apply any charges or credits to deposit  
account 06-1050.

Respectfully submitted,

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